

What is claimed is:

- 1) A method for authenticating, comprising the steps of:
 - storing a first short-range radio address for a cellular device in a processing device;
 - obtaining an authentication message in the processing device;
 - storing a second short-range radio address in the cellular device, wherein the first short-range radio address and the second short-range radio address are the same;
 - calculating a first message digest responsive to the authentication message and first short-range radio address;
 - transmitting, by a cellular network coupled to the processing device, a cellular message including the authentication message and the first message digest to the cellular device;
 - receiving the cellular message, by the cellular device;
 - calculating a second message digest responsive to the authentication message and the second short-range radio address; and,
 - comparing, by the cellular device, the first message digest to a second message digest to authenticate the cellular message.
- 20 2) The method of claim 1, wherein the authentication message is randomly calculated.
- 25 3) The method of claim 1, wherein the first message digest is a 128-bit value calculated by a one-way hash software component.
- 4) The method of claim 1, wherein the one-way hash software component is a MD5 software component.

5) The method of claim 1, wherein the first and second short-range radio addresses are a Bluetooth™ address.

5 6) The method of claim 1, wherein the cellular device includes a short-range radio transceiver.

10 7) The method of claim 1, wherein the cellular device is in a short-distance wireless network

10 8) The method of claim 1, wherein the short-distance wireless network is a Bluetooth™ wireless network.

15 9) The method of claim 7, wherein the short-distance wireless network is an 802.11 wireless local area network.

10 10) The method of claim 1, wherein the first and second short-range radio addresses are 48-bit values.

20 11) The method of claim 1, wherein the cellular device is a cellular telephone.

12) The method of claim 1, wherein the processing device is a server.

25 13) A method for authenticating, comprising the steps of:
storing a first short-range radio address, for a cellular device, in a processing
device;
obtaining an authentication message in the processing device;
storing a second short-range radio address in the cellular device, wherein the first
short-range radio address and the second short-range radio address are the same;

- calculating, by the processing device, a first message digest responsive to the authentication message and first short-range radio address;
- transmitting, by a cellular network coupled to the processing device, a cellular message including the authentication message to the cellular device;
- 5 receiving the cellular message, by the cellular device;
- calculating a second message digest responsive to the authentication message and the second short-range radio address;
- transmitting, by the cellular device, the second message digest; and,
- comparing, by the processing device, the first message digest to a second message
- 10 digest to authenticate the cellular message.
- 14) A method, comprising;
storing a first short-range radio in a cellular device;
storing a second short-range radio addresses in a processing device, wherein the
15 first short-range radio address and the second short-range radio address are the same;
encrypting a cellular message, by the processing device, using the second short-
range radio address;
transmitting the encrypted cellular message to the cellular device; and
decrypting the encrypted cellular message, by the cellular device, using the first
20 short-range radio address.
- 15) A method, comprising;
storing a first short-range radio in a cellular device;
storing a second short-range radio addresses in a processing device, wherein the
25 first short-range radio address and the second short-range radio address are the same;
encrypting a cellular message, by the cellular device, using the first short-range
radio address;
transmitting the encrypted cellular message to the processing device; and

decrypting the encrypted cellular message, by the processing device, using the second short-range radio address.

- 16) A method for identifying a cellular device, comprising the steps of:
 - 5 receiving, by the cellular device, a first cellular message requesting a cellular device identifier;
 - reading, by the cellular device, a first short-range radio address from the device;
 - transmitting, by the cellular device, a second cellular message including the first short-range radio address;
 - 10 storing a second short-range radio address in a processing device; and,
 - comparing the first short-range radio address to the second short-range radio address to identify the cellular device.
- 17) The method of claim 16, wherein the first and second short-range radio addresses are Bluetooth™ addresses.
- 18) The method of claim 16, wherein the cellular device includes a short-range radio transceiver.
- 20 19) The method of claim 16, wherein the cellular device is in a short-distance wireless network
- 20) The method of claim 19, wherein the short-distance wireless network is a Bluetooth™ wireless network.
- 25 21) The method of claim 16, wherein the short-distance wireless network is an 802.11 wireless local area network.

22) The method of claim 16, wherein the reading step includes executing a host controller command.

23) The method of claim 22, wherein the host controller command is
5 HCI_Read_BD_ADDR and the short-range radio address is BD_ADDR.

24) The method of claim 16, wherein the first and second short-range radio addresses are 48-bit values.

10 25) The method of claim 16, wherein the cellular device is a cellular telephone.

26) The method of claim 16, further comprising the steps of receiving a third cellular message responsive to the second cellular message.

15 27) The method of claim 26, wherein the first, second and third cellular messages are generated by a cellular network coupled to a processing device storing the second short-range radio address corresponding to the cellular device.

20 28) The method of claim 16, wherein the first, second and third cellular messages are in a Global System for Mobile communications (“GSM”) protocol.

25 29) A method for identifying a cellular device, comprising the steps of:
receiving, by the cellular device, a first cellular message having a first short-range radio address;
reading a second short-range radio address from the cellular device;
comparing, by the cellular device, the first short-range radio address with the second short-range radio address; and,
transmitting a second cellular message responsive to the comparing step.

- 30) A device, comprising:
a cellular transceiver capable to receive a first cellular message;
a first processor coupled to the cellular transceiver;
a first memory, coupled to the first processor, capable to store a first software
5 component for generating a command responsive to the first cellular message;
a second processor coupled to the first processor;
a short-range radio transceiver coupled to the second processor;
a second memory, coupled to the second processor, capable to store a second
software component for retrieving a short-range radio address associated with the short-
range radio transceiver responsive to the command, wherein the first software component
10 authenticates the first cellular message using the short-range radio address.
- 31) The device of claim 30, wherein the first cellular message includes a
message digest and the first software component includes a MD5 software component
- 15
- 32) The device of claim 30, wherein the first software component is a GSM
baseband software component and the second software component is a Bluetooth™
baseband software component.
- 20
- 33) The device of claim 30, wherein the short-range radio address is a
Bluetooth™ address.
- 25
- 34) The device of claim 30, wherein the device is in a short-distance wireless
network
- 35) The device of claim 30, wherein the short-distance wireless network is a
Bluetooth™ wireless network.

36) The device of claim 30, wherein the command is HCI_Read_BD_ADDR and the short-range radio address is BD_ADDR.

5 37) The device of claim 30, wherein the short-range radio address is a 48-bit value.

38) The device of claim 30, wherein the cellular device is a cellular telephone.

10 39) A device, comprising:
a cellular transceiver capable to receive a first cellular message;
a first processor coupled to the cellular transceiver;
a first memory, coupled to the first processor, capable to store a first software component for generating a command responsive to the first cellular message;
a second processor coupled to the first processor;
15 a short-range radio transceiver coupled to the second processor;
a second memory, coupled to the second processor, capable to store a second software component for retrieving a short-range radio address associated with the short-range radio transceiver responsive to the command, wherein the cellular transceiver generates a second cellular message including the short-range radio address to identify
20 the device.

25 40) A device, comprising:
a cellular transceiver capable to receive a first cellular message;
a short-range radio transceiver;
a first processor, coupled to the cellular transceiver and the short range radio transceiver;
a first memory, coupled to the processor, the cellular transceiver and the short-range radio transceiver, capable to store:

a first software component for executing a command responsive to the first cellular message;

5 a second software component for providing a short-range radio address associated with the short-range transceiver responsive to the command, wherein the cellular transceiver generates a second cellular message including the short-range radio address identifying the device.

41) The device of claim 40, wherein the command includes a function call.

10 42) The device of claim 41, wherein the function call is void
hciReadBDAddr(BD_ADDR*bd_addr).

15 43) The device of claim 40, wherein the first software component is a GSM baseband software component and the second software component is a Bluetooth™ baseband software component.

44) The device of claim 40, wherein the short-range radio address is a Bluetooth™ address.

20 45) The device of claim 40, wherein the cellular device is a cellular telephone.

46) A system, comprising:
a processing device;
a cellular network, coupled to the processing device, for transmitting a cellular
25 message;
a hand-held wireless device, including:
 a cellular transceiver to communicate with the cellular network,
 including to receive the first cellular message;

a short-range radio transceiver to communicate with the short-range radio network;

5 a processor coupled to the cellular transceiver and the short-range radio network;

10 a memory, coupled to the processor, to store:

a first software component for executing a software instruction responsive to the first cellular message;

15 a second software component for providing a short-range radio address associated with the short-range radio transceiver responsive to executing the software instruction, wherein the first software component authenticates the cellular message using the short-range radio address.

47) The hand-held wireless device of claim 46, wherein the first software
15 component is a GSM baseband software component and the second software component is a Bluetooth™ baseband software component.

48) The hand-held wireless device of claim 46, wherein the short-range radio address is a Bluetooth™ address.

20 49) The hand-held wireless device of claim 46, wherein the device is in a short-distance wireless network

25 50) The hand-held wireless device of claim 46, wherein the cellular device is a cellular telephone.

- 51) A system, comprising:
a processing device;
a cellular network, coupled to the processing device, for transmitting a cellular message;
- 5 a hand-held wireless device, including:
a cellular transceiver to communicate with the cellular network, including to receive the first cellular message;
a short-range radio transceiver to communicate with the short-range radio network;
- 10 a processor coupled to the cellular transceiver and the short-range radio network;
a memory, coupled to the processor, to store:
a first software component for executing a software instruction responsive to the first cellular message;
- 15 a second software component for providing a short-range radio address associated with the short-range radio transceiver responsive to executing the software instruction, wherein the cellular transceiver generates a second cellular message including the short-range radio address identifying the hand-held wireless device.
- 20
- 52) An article of manufacture, including a computer readable medium, in a device, comprising:
a cellular software component for executing a first instruction responsive to a first cellular message from a cellular network; and,
- 25 a short-range radio software component to provide a short-range radio address responsive to executing the first instruction, wherein the cellular software component authenticates the first cellular message using the short-range radio address.

53) The article of manufacture of claim 52, wherein the cellular software component generates a control signal to a cellular transceiver capable to generate a second cellular message containing the short-range radio address identifying the device.